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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,173	03/12/2004	John Woodworth	4735-00004	9520

7590 06/13/2006

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EXAMINER
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FIORITO, JAMES

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/799,173

Applicant(s)

WOODWORTH, JOHN

Examiner

James A. Fiorito

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 2 recites a temperature limitation in units of Celsius; it appears that the limitation should be in units of Fahrenheit according to the specification.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duffy et al. ("Wet Peroxide Oxidation of Sediments Contaminated with PCBs", Environ. Sci Technol. (2000)) in view of Swallow '604.**

Duffy discloses a method for treating low solids content sediment from a body of water, said sediment including halogenated organic compound contaminants, the method comprising the steps of: (1) dewatering the sediment to obtain a stream of water having a concentrated solids content of 50% by weight; (2) adding air or oxygen, and hydrogen peroxide to the concentrated solids stream; (3) pressurizing the concentrated

solids stream to a pressure in the range of about 1500 psi. Iron is used a catalyst to facilitate the oxidation with hydrogen peroxide (Pages 3199 – 3200).

Duffy does not teach the addition of a fuel to the concentrated solids stream (4) preheating the pressurized stream by passing the stream through a heat exchanger; (5) conveying the preheated stream into a reactor operating at a self-sustaining temperature sufficient to dehalogenate and decompose or denature the contaminant compounds; (6) returning the dehalogenated and decomposed or denatured stream to the heat exchanger to provide heat for the preheating step; and, (7) reducing the pressure of the stream for further processing, and operating the reactor at a temperature in the range of 800 degrees C to 2000 degrees C.

Swallow teaches a process for the oxidation of sediments contaminated with toxic compounds at supercritical temperatures (Column 21) including the steps of the addition of a fuel to the concentrated solids stream (Column 13)(4) preheating the pressurized stream by passing the stream through a heat exchanger; (5) conveying the preheated stream into a reactor operating at a self-sustaining temperature sufficient to dehalogenate and decompose or denature the contaminant compounds; (6) returning the dehalogenated and decomposed or denatured stream to the heat exchanger to provide heat for the preheating step (Column 10-13); (7) reducing the pressure of the stream for further processing (Column 13), and operating the reactor at a temperature at 800 degrees C (Column 7). Duffy and Swallow are analogous art because they are from the same field of endeavor, namely processes that remove toxic materials from sediments.

At the time of invention, it would have been obvious to person of ordinary skill in the art to form the process of Duffy including the addition of a fuel to the concentrated solids stream (4) preheating the pressurized stream by passing the stream through a heat exchanger; (5) conveying the preheated stream into a reactor operating at a self-sustaining temperature sufficient to dehalogenate and decompose or denature the contaminant compounds; (6) returning the dehalogenated and decomposed or denatured stream to the heat exchanger to provide heat for the preheating step; and, (7) reducing the pressure of the stream for further processing, and operating the reactor at a temperature in the range of 800 degrees C to 2000 degrees C in view of the process taught by Swallow. The suggestion or motivation for adding the step of the addition of a fuel to the concentrated solids stream would have been to offset heat loss in the reactor and to achieve a high temperature than the reaction is capable of sustaining (Column 13 lines 32-47). The motivation for (4) preheating the pressurized stream by passing the stream through a heat exchanger; (5) conveying the preheated stream into a reactor operating at a self-sustaining temperature sufficient to dehalogenate and decompose or denature the contaminant compounds, (6) returning the dehalogenated and decomposed or denatured stream to the heat exchanger to provide heat for the preheating step, and (7) reducing the pressure of the stream for further processing would have been to rapidly heat up the incoming feed to the reactor and to not greatly affect the fuel feed value requirement by using recycled heat (Column 13 Lines 7-15). The motivation to operate the reactor at a temperature of 800 degree C would have been to provide a complete oxidation of the reactants (Column 7).

**Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Duffy et al. (“Wet Peroxide Oxidation of Sediments Contaminated with PCBs”, Environ. Sci Technol. (2000)) in view of Swallow ‘604 as applied to claims 1-3 above, and further in view of Rickard ‘578.**

Duffy in view of Swallow does not expressly state the steps of: providing a first barge for process equipment utilized in performing steps (1) and (2); providing a second barge for process equipment utilized in performing steps (3)-(7); and, providing one or more low pressure process flow connection between said barges.

Rickard teaches a process of removing organic contaminants from sediment using a barge to support the equipment used in the process (Column 4-5). Duffy, Swallow and Rickard are analogous art because they are from the same field of endeavor, namely process of removing contaminants from sediments.

At the time of invention it would have been obvious to a person of ordinary skill in the art to form the process of Duffy in view of Swallow to further include the steps of: providing a first barge for process equipment utilized in performing steps (1) and (2); providing a second barge for process equipment utilized in performing steps (3)-(7); and, providing one or more low pressure process flow connection between said barges in view of the teaching of Rickard. The suggestion or motivation for doing so would have been to make the process mobile (Column 4-5).

***Allowable Subject Matter***

Claims 4-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

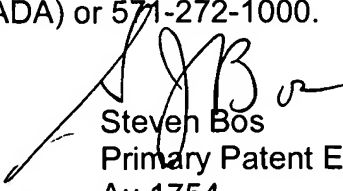
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fiorito whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Fiorito  
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AU 1754



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